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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/412,578	10/05/1999	KOJI HIRATA	520.37710X00	9832

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ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VA 22209

EXAMINER

MAHONEY, CHRISTOPHER E

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 03/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/412,578	Applicant(s) HIRATA ET AL.	
	Examiner Christopher E Mahoney	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The applicant is respectfully requested to indicate if the term "ReaLook" as described on page 29, line 23 is a trademark or not. The applicant is directed to review MPEP 608.01(v).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 27 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically the reflection film not exceeding 1% reflection in the visible wavelength region is considered to be new matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 11, 13-14, 16, 18-19, 21, 23-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (U.S. Pat. No. 6,061,178) in view of Yamaguchi (U.S. Pat. No. 6,185,038) and further in view of Mitani (U.S. Pat. No. 5,815,313) or Ichikawa (U.S. Pat. No. 4,988,164). Park teaches a rear projection screen comprising a Fresnel lens 21, a first configuration element 22 comprising lenticular lenses 23 on the light incident side, light passing windows 25 in close proximity to the focal points of the lenticular lenses, a plurality of light absorbing areas 27, and a second configuration element 29 adhered to the first configuration element. As can be seen in figures 3-4, there is no air gap between the configuration elements 22 and 23. A light scattering element 25 is disposed between the first configuration element and the second configuration element. The applicant is directed to review figures 3-4 as well as the abstract and column 3, lines 16-23. Park teaches the salient features of the claimed invention except for having the pitch of the lenticular sheet smaller than the pitch of the pixels projected. Yamaguchi teaches in column 3, lines 35-44 and column 19, line 53 of setting the pitch of the interference lines of the interference sources to about equal to or less than the pitch of pixels projected. It would have been obvious at the time the invention was made for one of ordinary skill in the art to include the features taught by Yamaguchi for the purpose of reducing/eliminating moiré interference.

Park in view of Yamaguchi teaches the salient features of the claimed invention except it does not explicitly state that the method of antireflection is an anti reflection preventing film. Mitani teaches at column 3, line 66 to column 4, line 3 that anti reflection films are a standard method of performing antireflection. Ichikawa teaches in the abstract that anti reflective films

are notoriously well known in the art. It would have been obvious at the time the invention was made for one of ordinary skill in the art to include the features taught by Mitani or Ichikawa for the purpose of cost effectively increasing contrast by reducing glare by utilizing readily available products/techniques. The examiner notes that Ichikawa discloses that the antireflection film may be used on any optical element while Mitani explicitly states that it may be used on the front diffusion sheet. It would have been obvious at the time the invention was made for one of ordinary skill in the art to include the features taught by Mitani or Ichikawa for the purpose of reducing unwanted glare.

Claims 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (U.S. Pat. No. 6,061,178) in view of Yamaguchi (U.S. Pat. No. 6,185,038) and further in view of Mitani (U.S. Pat. No. 5,815,313) or Ichikawa (U.S. Pat. No. 4,988,164). Park in view of Yamaguchi and Mitani/Ichikawa discloses the claimed invention except for L_p/F_p within a range of 1.588 to 1.649. It would have been obvious at the time the invention was made for one of ordinary skill in the art at the time the invention was made to utilize a ratio L_p/F_p in the range of 1.588 to 1.649, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 1-5, 7, 10-11, 13-16, 18-21, 23-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh (U.S. Pat. No. 5,870,224) in view of Yamaguchi (U.S. Pat. No. 6,185,038). Saitoh teaches a rear projection screen comprising a Fresnel lens (figure 16), a first configuration element 21 comprising lenticular lenses on the light incident side, light

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passing windows 1318 in close proximity to the focal points of the lenticular lenses, a plurality of light absorbing areas 23, and a second configuration element 14, 16 adhered to the first configuration element. As can be seen in figure 4 there is no air gap between the configuration elements. A light scattering element 14 is disposed between the first configuration element and the second configuration element 16 or in the alternative, 14 is disposed as part of the second configuration element. The applicant is directed to review figures 4 and 16 as well as the abstract, column 3, lines 14-20, column 5, lines 65, and column 6, line 10. Saitoh teaches the salient features of the claimed invention except for having the pitch of the lenticular sheet smaller than the pitch of the pixels projected. Yamaguchi teaches in column 3, lines 35-44 and column 19, line 53 of setting the pitch of the interference lines of the interference sources to about equal to or less than the pitch of pixels projected. It would have been obvious at the time the invention was made for one of ordinary skill in the art to include the features taught by Yamaguchi for the purpose of reducing/eliminating moiré interference.

Claims 6, 12, 17, 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh (U.S. Pat. No. 5,870,224) in view of Yamaguchi (U.S. Pat. No. 6,185,038). Saitoh in view of Yamaguchi discloses the claimed invention except for L_p/F_p within a range of 1.588 to 1.649. It would have been obvious at the time the invention was made for one of ordinary skill in the art at the time the invention was made to utilize a ratio L_p/F_p in the range of 1.588 to 1.649, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh (U.S. Pat. No. 5,870,224) in view of Yamaguchi (U.S. Pat. No. 6,185,038) as applied to claims 1-5, 7, 10-11, 13-16, 18-21, 23-24, and 26 above and further in view of the applicant's admitted prior art (AAPA) or Oi (U.S. Patent No. 5,804,102). Saitoh in view of Yamaguchi teaches the salient features of the claimed invention except for the light reflectance of the reflective prevention film not exceeding 1% in the visible wavelength region. The applicant states that ReaLook may be used as the antireflection film. The examiner considers ReaLook to be admitted prior art since it was a commercially available antireflection film at the time the invention was made. Oi also discloses using ReaLook as an antireflection film in a display. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the ReaLook as taught by the AAPA or Oi for the purpose of reducing as much glare as possible and for using commercially available materials.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh (U.S. Pat. No. 5,870,224) in view of Yamaguchi (U.S. Pat. No. 6,185,038) as applied to claims 1-5, 7, 10-11, 13-16, 18-21, 23-24, and 26 above and further in view of Nijima (JP 3-168630). Saitoh in view of Yamaguchi teaches the salient features of the claimed invention except for the pitch of the Fresnel lenses being at most $\frac{1}{2}$ the pitch of the pixels projected. Nijima teaches in column the constitution section as well as figure 2 that it was known to utilize a screen where the projected pixel pitch P1 is at least 3 times (which is greater than twice) the pitch of the Fresnel lens pitch. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to utilize the features as taught by Niijima for the purpose of reducing/eliminating moiré.

Response to Arguments

The applicant has stated that claims 27 and 28 present features which were not previously considered. Applicant's arguments with respect to claims 27 and 28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E Mahoney whose telephone number is (703) 305-3475. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



CHRISTOPHER MAHONEY
PRIMARY EXAMINER